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ARIZONA STATE UNIVERSITY ■ COLLEGE OF BUSINESS
BUREAU OF BUSINESS AND ECONOMIC RESEARCH

Aging of U.S. Population To Impact Arizona Economy

Major demographic shifts — particularly in the age composition of the U.S. population — will transpire during the next 20-plus years, forcing many economic adjustments. Further, in states like Arizona where population gains largely derive from migration, these shifts may also impact population growth. Before examining potential effects, it is important to consider Arizona's historical population growth and the state's expected future gains.

POPULATION GROWTH — THE PAST

Arizona has experienced rapid population growth relative to the nation as a whole throughout the 20th century. From less than 123,000 residents in 1900, the state's population increased more than four times, to almost 500,000, by 1940. The post-World-War-II period has been marked by a major shift of the nation's population to the South and the West. This phenomenon has clearly been reflected in the growth trends of Arizona: a 50 percent increase during the 1940s; even faster growth during the 1950-60 decade; a slowing of the expansion in the 1960s (similar to the experience throughout the Western states); and a strong resurgence in the rate of growth during the 1970s.

Breaking out the total population increase during each decade into the

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'85 Valley Home Appreciation Stable at 3 Percent

Appreciation in home values during 1985 in the Phoenix metropolitan area remained stable at an annual rate of approximately 3 percent. For the third consecutive year at this rate, home values did not increase as fast as the general inflation rate, a sharp reversal from their rapid rise during the 1970s.

HOUSING APPRECIATION, 1981-85

The median rate of housing appreciation in the Phoenix area has been

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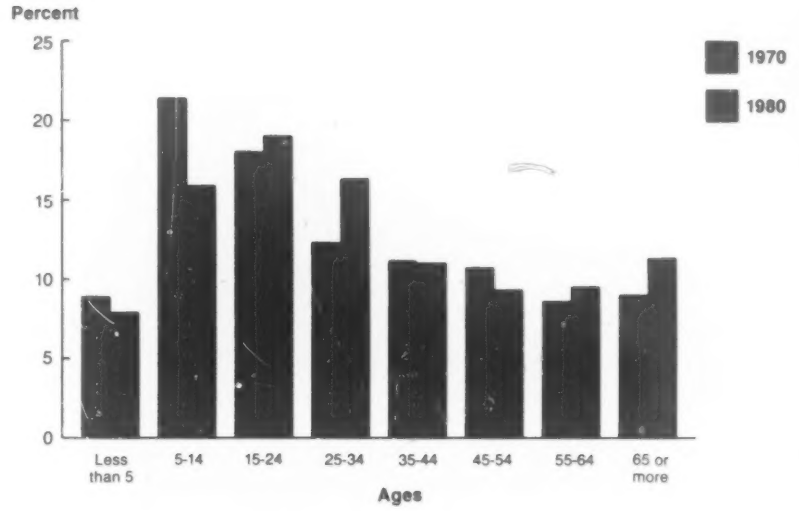
shares contributed by natural increase (the excess of births over deaths) and by net migration reveals that more than one-half of Arizona's population growth has resulted from net in-migration. Only during the 1960s did migration constitute less than 50 percent. With lower fertility since 1970, net migration has played an even greater role, contributing almost 70 percent of the 1970s' total increase in population.

In-migration has played a more important role in the growth of Arizona than has been the case for the Western region as a whole. While the absolute number of migrants to several other states in the West has been greater than the number moving to Arizona, the resident population of these states is also larger, making the net migration rate (the percent increase in population due to migration) to the West lower than to Arizona.

FIGURE I
ARIZONA AGE COMPOSITION



Source: U.S. Department of Commerce, Bureau of the Census.

POPULATION GROWTH — THE FUTURE

Official state population projections produced by the Population Statistics Unit of the Arizona Department of Economic Security are for a resident population of 3.7 million by 1990, an increase of 1 million since the 1980 census. The total number of Arizona residents is projected to top 4.8 million by the year 2000 — an additional 1.1 million people.

These population projections assume net migration into Arizona of 680,000 during the 1980-90 period. This figure is slightly greater than the 660,000 gain from migration during the 1970s. Net migration is projected to rise further, to 860,000 during the 1990s. The net migration figure for the 1980s would constitute about 70 percent of the state's total population gain for the decade — similar to the share for the 1970-80 period. With the number of deaths expected to increase faster than births during the 1990s, so that the natural increase will decline, migration is projected to contribute more than 75 percent of population growth during the 1990-2000 decade.

The official estimates of population gains during the 1990s may be overestimating the likely increases, however. These estimates assume that net migration during the 1990s will rise more than 25 percent from both the actual figure of the 1970s and the estimate of the 1980s. Instead, the number of migrants is likely to decline during the 1990s because of changes in the age composition of the American population. Migrants to Arizona have been predominantly of two types: young adults and senior citizens. After 1989, the number of young adults will decline substantially; for example, the number of Americans between 25 and 34 years of age will decline from 43.7 million in 1989 to 35 million in 2006. The number of senior citizens will increase, but only modestly until after 2005.

AGE COMPOSITION

With higher fertility than the nation as a whole, Arizona's proportion of population that is less than 15 years old is higher than that for the total U.S. population or for the West. With substantial retirement migration to Arizona, the proportion of the population that is 55 years or older is greater in Arizona than for the western region but is no larger than that for the nation as a whole. The age composition within Arizona's 55-or-older age group differs from the U.S. average, however, with a higher proportion of people 55 to 74 years old and fewer in the 75-or-older age group.

The age distribution of the state's population has changed substantially over time, in response to the demographic impacts of fertility, mortality, and migration. High birth rates experienced during the "baby-boom" period of the late 1940s and the 1950s resulted in a high proportion of children through the early 1960s; however, with lower fertility, the relative number of people less than 15 years old has since declined. Conversely, as the large group of people born during the early postwar period has aged, the proportion of young adults has grown. Due to both increases in life expectancy and retirement migration, the proportion of the Arizona population 55 or older has also expanded dramatically (see Figure I).

The net impact of all the demographic factors affecting age composition has been an overall aging of the state's population. Although the large number of children born during the "baby boom" lowered the median age of the Arizona population during the 1950s, the median age has risen from 25.7 years in 1960 to 29.2 years in 1980. At the same time, however, the in-migration of young adults and

TABLE 1
UNITED STATES AGE DISTRIBUTION

Age	1970	1980	1985	1990	2000	2010
Younger than 5	8.5%	7.2%	7.5%	7.5%	6.4%	6.2%
5 to 15	21.8	17.2	15.7	15.6	15.8	13.9
16 to 24	15.7	17.0	15.0	12.9	12.0	12.4
25 to 44	23.6	27.7	30.9	32.6	29.9	26.1
45 to 64	20.6	19.7	18.8	18.7	22.8	27.6
65 or older	9.8	11.3	12.0	12.7	13.0	13.9

Source: U.S. Bureau of the Census: 1970 and 1980 decennial censuses. Data Resources Inc.: 1985-2010 estimates.

the high fertility rate have offset the impact of retirement migration and have caused the median age of Arizona's population to remain below the national median.

The age structure of both the Arizona and U.S. populations will continue to develop, as illustrated in Table 1. The proportion of children has already declined and will fall further. While the percentage of young adults increased between 1970 and 1980, the aging of the baby-boom generation has already caused this phenomenon to reverse. The proportion of older, pre-retirement adults will bulge after 1990, but the percentage of senior citizens will not change substantially until after 2005.

ECONOMIC IMPACTS

Nationally, the evolving age composition will create tremendous economic effects. Arizona's rapid inmigration will modify these impacts on the local economy.

The labor force grew rapidly during the last 20 years because the baby boomers were entering the work force, and the labor force participation rate of females was increasing. During the next 20 years, however, fewer young people will enter the work force, and gains in the female-participation rate will slow. While the decreased number of new workers should put an end to the generally rising unemployment rate of the last 20 years, the rate may not decline substantially. Proportionately, not many workers will reach retirement age until after 2005; further, less demand will exist due to a smaller number of young consumers. The slowdown in labor-force growth will translate to a smaller potential gain in Gross National Product, from the historical 3 percent per year to perhaps less than 2.5 percent annually.

Concern has been expressed about the long-term viability of the Social Security program, as the number of workers declines and the number of retirees increases. While future problems may be substantial, they are more than 20 years away. Until then, the number of retirees per worker will remain nearly constant: In 1965, there were 24.8 people 65 or older for every 100 workers; by 2005, the ratio will climb only to 25.1.

The housing industry will undergo major changes during the next 20 years. The necessary number of new housing units will decline, from 1.85 million in the 1980s to less than 1.6 million after 1995. In addition, demand for the various types of housing will shift.

Since a disproportionately large share of apartment dwellers are young adults, the demand for apartment units will begin to decline before 1990. The surge in apartment construction during the last three years probably will not be repeated for decades. Areas that are not growing rapidly may experience persistently high vacancy rates.

The single family home market will also change. The demand for starter homes is currently peaking, but the clamor for larger, more expensive homes will rise during the next few years as baby boomers' incomes and families grow. That market, too, will decline later, as the baby boomers age into their 50s.

This changing age distribution will affect the demand for many other products since the consumption patterns of those in their 20s and 30s differ from those of older adults. All segments of the economy will need to adapt to these changing conditions.

— **Timothy D. Hogan**

— **Tom R. Rex**
Research Manager

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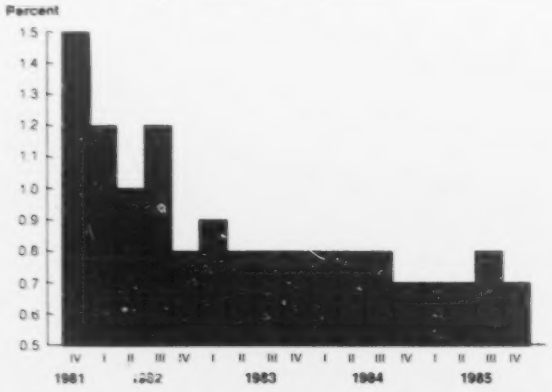
nearly constant since late 1982, at 0.7 to 0.8 percent per quarter (see Figure I). Despite an expanding economy and improved housing affordability since 1982, the rate of appreciation has not accelerated.

Home values are again increasing at approximately the rate of inflation, as seen in Table 1, following several years during the 1970s when gains exceeded the inflation rate. The appreciation rate was lower than the inflation rate in both 1984 and 1985, partially because it typically lags changes in the inflation rate and partially because of continued housing affordability problems. Declining mortgage interest rates throughout 1985 helped affordability, but these rates remained high compared to any period prior to 1980. Combined with home prices that remain historically high in comparison to household incomes, the affordability index has failed to reach 100 (see page 7).

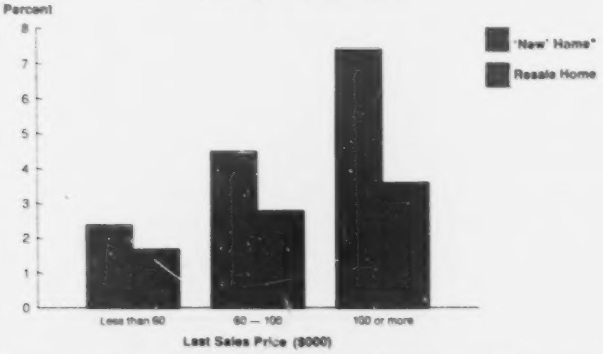
During the last three years, the appreciation rate was less than the rate of increase in the median sales price, with the difference almost entirely due to an increase in size of the average home sold. The gain in the median sales price per square foot of resale homes was almost identical to the appreciation rate of resale homes (see Table 1).

FIGURE I
MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
By Quarter of Last Sale



Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

FIGURE II
APPRECIATION IN METRO PHOENIX HOME VALUES
1981-85, Annual Rate



*A "new" home is one originally sold as new between 1981 and 1985 and later resold during this period.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

TABLE 1
INFLATION MEASURES

	Percent Change			
	1983	*1984*	*1985*	*1983-85 Total**
Metropolitan Phoenix Consumer Price Index	1.6	5.8	5.0	12.9
U.S. Consumer Price Index	3.2	4.3	3.6	11.5
Phoenix Area				
All single family homes:				
Appreciation rate	3.6	3.2	3.0	10.1
Median sales price	4.8	6.3	4.0	15.9
New single family homes:				
Appreciation rate	5.7	4.7	4.9	16.1
Median sales price	6.0	9.9	8.1	25.9
Existing single family homes:				
Appreciation rate	2.9	2.7	2.8	8.6
Median sales price	4.6	4.8	3.2	13.1
Median sales price per square foot	2.9	3.0	2.2	8.3

*Calculated at a compounded rate.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University. U.S. Consumer Price Index from the U.S. Department of Labor, Bureau of Labor Statistics.

Effect of Housing Characteristics on Appreciation

Not all homes appreciate at the same rate. A home's value is partially controlled by the owner, through maintenance, repair and improvement activities. Not controllable by the homeowner, however, are determinants of appreciation that are a function of the entire market, such as whether the home is new and expensive.

The most important single influence on appreciation is whether the home was purchased new. (In this study, a "new" home is defined as one built, and later resold, between 1981 and 1985.) As seen in Table 1, the appreciation rate of new homes, 16.1 percent during the last three years, was nearly twice that of homes that were not purchased new, 8.6 percent. This rapid appreciation is realized only upon the first sale of a new home.

The faster increase in value of new homes may be misleading, however, in that at least a portion of the gain reflects additional expenses that most buyers of new homes incur in making permanent improvements, such as landscaping, which add to the value of the property.

The other characteristic that has a statistically significant impact on appreciation is the price of the residence: The more expensive a home, whether a new or existing property, the higher its rate of appreciation (see Figure II). Homes that sold for more than $100,000 had an appreciation rate of 1.2 percent per quarter, compared to a rate of only 0.5 percent per quarter for homes sold for less than $60,000.

Controlling for the size of the home by using price per square foot, a difference in the appreciation rate is still measured: Homes with a price per square foot greater than the median of $51 appreciated 1.1 percent per quarter, compared to a rate of 0.7 percent per quarter for those priced less than the median.

Housing Appreciation by Geographic Area

While the rate of appreciation varies by location across the Phoenix

metropolitan area, much of the variation can be explained by the housing characteristics described above. An area with a large proportion of new and expensive homes will usually have a higher rate of housing appreciation than an area of older and less expensive dwellings.

The rate of appreciation, by district, is shown in Table 2. Rapid appreciation in the North Scottsdale, Paradise Valley, South Mesa, East Mesa, and Sun City West districts primarily relates to the greater proportion of new homes in those areas. In addition, most residences in North Scottsdale, Paradise Valley, and Sun City West are relatively expensive.

The other district with significantly higher appreciation, Sun City/Youngtown/Peoria, does not have a high proportion of new or expensive homes. Apparently, the unique nature of Sun City, including the unwillingness of homebuyers to consider other areas, such as Glendale or Phoenix, is responsible for the greater increase in home values. This same condition probably explains the very high rate of appreciation in Sun City West. East Mesa, which includes Leisure World and other retirement communities, also follows this pattern, since the appreciation rate in this district is slightly higher than expected, given its relatively low-priced homes.

The slowest appreciation rates were in the Metrocenter, Maryvale, Deer Valley and South Tempe districts. Metrocenter and Maryvale are areas in which most homes are lower-priced and older. South Tempe's low home appreciation rate occurred in all price ranges and for both new and resale properties. Deer Valley's low rate was primarily for inexpensive homes.

The appreciation rate in some districts was different in 1985 than in prior years, as seen in Table 2. Because of the short time frame and the associated relatively small number of transactions, these changes in appreciation during 1985 should be interpreted with caution; many year-to-year variations are meaningless. In some districts, however, the rates of appreciation in both 1984 and 1985 differed from those of earlier years and may signal a trend that is not yet observable in the data for the entire 1981-85 period. In Paradise Valley, Northwest Phoenix, North Mesa, East Mesa and Deer Valley, the appreciation rate was lower in 1984 and 1985. The opposite trend was measured in the East Camelback, Mid-town Phoenix and Sun City West districts.

TABLE 2
MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
By Geographic District, Per Quarter

	Median Percent Change Per Quarter			
District	*1981-83*	*1984 Only*	*1985 Only*	*1981-85*
North Scottsdale	0.9	0.9	1.2	1.1[H]
South Scottsdale	0.7	0.7	0.8	0.7
Paradise Valley	1.3	1.0	0.9	1.0[H]
North Sunnyslope/Moon Valley	0.7	0.7	0.7	0.7
Northwest Phoenix	0.9	0.8	0.6	0.7
Metrocenter	0.4	0.6	0.5	0.5[L]
Sun City/Youngtown/Peoria	1.2	1.3	0.9	1.0[H]
Glendale	0.8	0.7	0.6	0.6
Christown	0.5	0.5	0.7	0.6
North Central Phoenix	0.6	1.0	0.4	0.7
East Camelback	0.6	1.0	1.3	1.0
East Central Phoenix	0.6	1.1	0.5	0.9
Mid-town Phoenix	0.5	0.8	1.0	0.6
West Central Phoenix	0.7	0.7	1.0	0.7
Maryvale	0.5	0.5	0.4	0.5[L]
Downtown/South Central Phoenix	0.0	1.0	0.2	0.6
South Phoenix	0.8	1.1	0.7	0.9
North Tempe	0.7	0.2	0.6	0.6
South Tempe	0.7	0.5	0.7	0.7[L]
North Mesa	1.0	0.5	0.5	0.8
South Mesa	0.9	1.0	0.9	1.0[H]
East Mesa	1.2	0.9	0.9	0.9[H]
Chandler/Gilbert	0.9	0.9	1.1	1.0
Western Suburbs	1.2	0.6	1.0	0.9
Deer Valley	1.0	0.7	0.6	0.7[L]
Sun City West/Rural Maricopa Co.	1.6	2.2	2.5	2.2[H]
TOTAL, METROPOLITAN PHOENIX	0.8	0.8	0.8	0.8

[H]The mean associated with this median is significantly higher than the mean for all of metropolitan Phoenix.

[L]The mean associated with this median is significantly lower than the mean for all of metropolitan Phoenix.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University. District designations are copyrighted by the Maricopa County Housing Study Committee.

OUTLOOK

Appreciation in Phoenix area home values is expected to remain at slightly more than a 3 percent annual rate through 1986. Inflation and housing affordability, the two factors that most influence the overall appreciation rate, are not likely to change much through 1986. Appreciation of new home values should continue to exceed the inflation rate, while gains in resale homes probably will again fall short of that pace.

Looking beyond 1986, appreciation rates are likely to follow changes in the inflation rate. Because it is difficult to present a situation in which mortgage rates would decline much further, a persistent affordability problem is likely to continue limiting housing appreciation. Should mortgage rates fall, any increase in home values that significantly exceeds the gain in household income will again cause an affordability problem, this time due to higher home prices rather than to high interest rates. Thus, it is difficult to conceive of a situation similar to that of the late 1970s, when housing values accelerated rapidly, rising beyond inflation and income levels.

— Tom R. Rex
Research Manager

— Jay Q. Butler

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'85 Valley Home Sales Barely Pass '84 Level

The number of homes sold in the Phoenix metropolitan area during the fourth quarter rose slightly from the third quarter level, to 15,357, barely exceeding the record number sold during second quarter 1984. An increase in sales of existing homes provided the boost; the volume of new home sales decreased (see Table 1).

Declines in mortgage interest rates throughout 1985, but particularly after late May, stimulated home sales during the second half of the year. After running at a slower pace than in 1984 during the first half of 1985, the volume of homes sold during 1985 totaled 56,380 — 1.3 percent more than in 1984.

Resale single family homes, which accounted for more than two-thirds of all homes sold in 1985, led the gain with a sales increase of 3.8 percent. New single family home sales also advanced slightly, but the number of townhouse and condominium sales dropped 10 percent. The latter accounted for just 13.5 percent of all sales, the smallest share since 1981. Improved affordability of single family homes (see page 7) reduced the demand for townhouses and condominiums.

MEDIAN SALES PRICE

Despite a price decline for existing single family homes, the median sales price rose 0.7 percent in the fourth quarter, to $75,500 – 4.8 percent higher than in fourth quarter 1984. New single family home prices continued to rise rapidly; resale townhouse and condominium prices also recorded a gain but still did not reach the level of one year earlier.

For all of 1985, the median sales price was $74,000. The annual average increase of 4.2 percent was less than the 6.0 percent gain in 1984; the rate of increase for each housing type was less than in the prior year.

With an inflation rate of 5 percent measured by the Metropolitan Phoenix Consumer Price Index (see page 11), home prices again rose at a slower pace. However, in part due to higher land costs and the construction of larger homes, the increase in the median sales price of new single family homes exceeded the inflation rate. In contrast, deflation was measured in the median price of resale townhouses and condominiums, as the slump affected price as well as number of sales.

The advance in the price of resale single family homes, 3.2 percent, exceeded the gain in the median price per square foot, 2.2 percent, indicating that larger homes constituted a greater proportion of sales during 1985. Thus, adjusted for size, the rate of increase in single family resale home prices was less than one-half of the Valley's inflation rate, another sign that housing cannot be viewed as the investment it was during the 1970s (see the appreciation article on page 1).

OUTLOOK

Little change is expected in inflation rates, interest rates, or general economic conditions during 1986. Thus, the number of Phoenix area homes sold this year likely will be close to that of 1985. While the rate of increase in home prices shows some signs of acceleration, any speedup is likely to be minor; home price gains should not exceed the general inflation rate.

— **Tom R. Rex**
Research Manager

TABLE 1
METROPOLITAN PHOENIX HOME SALES

	Single Family			Townhouse/Condominium			Grand
Fourth Quarter 1985	*Resale*	*New*	*Total*	*Resale*	*New*	*Total*	**Total**
Median sales price	$74,650	$86,875	$77,900	$62,500	$67,000	$64,450	$75,500
Percent change from:							
Third quarter 1985	– 0.5	3.9	0.4	1.8	0.8	0.7	0.7
Fourth quarter 1984	3.4	10.3	4.2	– 2.2	3.4	0.0	4.8
Number of sales	10,469	2,711	13,180	1,430	747	2,177	15,357
Percent change from:							
Third quarter 1985	3.8	– 16.0	– 1.0	28.4	– 16.3	8.5	0.3
Fourth quarter 1984	18.9	6.4	16.1	17.5	– 18.3	2.2	13.9
Annual, 1985							
Median sales price	$73,500	$83,200	$75,925	$62,475	$65,050	$63,700	$74,000
Percent change from 1984	3.2	8.1	4.0	– 1.6	3.9	1.0	4.2
Number of sales	38,605	10,174	48,779	4,864	2,737	7,601	56,380
Percent change from 1984	3.8	1.4	3.3	– 6.0	– 16.2	– 10.0	1.3

Source: Bureau of Business and Economic Research, College of Business, Arizona State University; from data supplied by Marketron Services, Inc., Phoenix.

Valley Home Affordability at Highest Level in '85

Rising household incomes and declining interest rates offset increases in home prices during 1985, pushing home affordability to its highest level, on an annual basis, since the Metropolitan Phoenix Housing Affordability Indexes began in 1981. Improvement in resale home affordability was greater than that for new homes, resulting in an unusually large spread of 10 percentage points between their affordability indexes (89 and 79 respectively).

INTERPRETATION OF THE INDEX

The 1985 annual resale index of 89 means a household that earned the median income of $2,570 per month had 89 percent of the income required to qualify for the purchase of a median-priced ($73,500) resale home (see Table 1), assuming a 15 percent downpayment on a fixed-rate, conventional, 30-year loan. Because the median-priced new home was more expensive ($83,200), new homes were less affordable (see Table 2).

Each index is only a benchmark of affordability; for example, the median-income household could afford either a slightly lower-priced resale home ($66,675) or, with a somewhat larger down payment (23 percent), the median-priced resale home. Affordability could vary substantially if other financial components are assumed, such as selection of a variable-rate mortgage or eligibility for a lower income-qualification factor.

Affordability can also be interpreted in terms of the income needed to qualify a household for a median-priced home. A gross monthly income of $3,260 was needed in 1985 to afford a median-priced new home; $2,880 was required to buy a median-priced resale home.

TABLE 1
HOUSING AFFORDABILITY INDEX, RESALE HOMES
Metropolitan Phoenix

Period	Median Sales Price	Interest Rate	Monthly Housing Payment	Median Gross Monthly Income	Affordability Index
Annual					
1981	$65,000	16.7%	$910	$1,990	61
1982	65,000	16.7	910	2,160	67
1983	68,000	13.7	790	2,270	80
1984	71,250	14.2	860	2,470	81
1985	73,500	12.9	810	2,570	89
Quarter					
4th 1984	$72,225	13.9%	$850	$2,510	82
1st 1985	70,900	13.4	810	2,540	88
2nd 1985	72,500	13.4	820	2,560	87
3rd 1985	75,000	12.6	800	2,580	90
4th 1985	74,650	12.3	790	2,610	93

Source: Bureau of Business and Economic Research and the Arizona Real Estate Institute, College of Business, Arizona State University. Interest rates are from the Federal Home Loan Bank Board *News*, and income figures are derived from the Annual Buying Survey in *Sales and Marketing Management*.

TABLE 2
HOUSING AFFORDABILITY INDEX, NEW HOMES
Metropolitan Phoenix

Period	Median Sales Price	Interest Rate	Monthly Housing Payment	Median Gross Monthly Income	Affordability Index
Annual					
1981	$74,800	16.7%	$1,050	$1,990	53
1982	66,100	16.7	920	2,160	65[r]
1983	70,050	13.7	820	2,270	78
1984	76,950	14.2	920	2,470	75
1985	83,200	12.9	910	2,570	79
Quarter					
4th 1984	$78,700	13.9%	$930	$2,510	76
1st 1985	79,925	13.4	910	2,540	78
2nd 1985	81,150	13.4	920	2,560	78
3rd 1985	83,575	12.6	900	2,580	80[r]
4th 1985	86,875	12.3	910	2,610	80

[r]Revised

Source: Bureau of Business and Economic Research and the Arizona Real Estate Institute, College of Business, Arizona State University. Interest rates are from the Federal Home Loan Bank Board *News*, and income figures are derived from the Annual Buying Survey in *Sales and Marketing Management*.

CHANGES IN AFFORDABILITY IN 1985

The combined effect of changes in home prices, mortgage interest rates and household incomes determines the change in housing affordability. Mortgage interest rates continued to drop in 1985, falling 9 percent from 1984 and 23 percent from the annual averages of 1981 and 1982. From the peak of 18.8 percent during fourth quarter 1981 to the trough of 12.3 percent during fourth quarter 1985, the decline totaled 35 percent. The indexes use the effective interest rate on conventional mortgage loans for single family homes, which is the contract rate plus fees and charges, or "points," amortized over a 10-year period.

Unlike new home prices, the median sales price of resale homes typically falls in the fourth quarter. During 1985, this seasonal decline (0.5 percent) resulted in only a 3 percent rise in the annual median sales price for resale homes, compared to an 8 per-

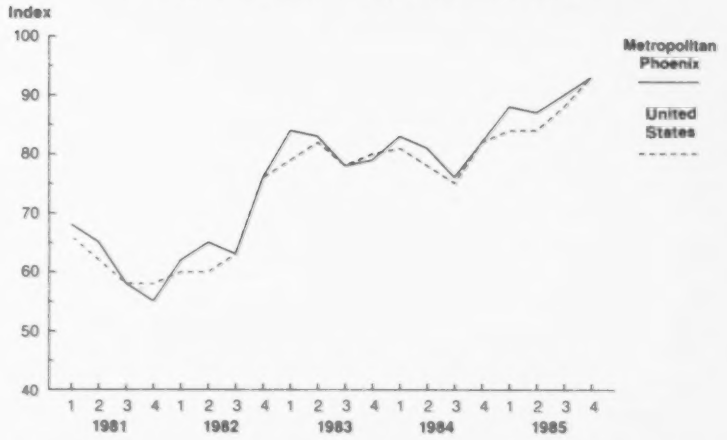
cent gain in new home prices. The third consecutive year of larger price increases for new homes pushed the median sales price 13 percent above the median price of resale homes.

New home prices increased at rates in excess of household income advances during 1985, nearly offsetting the decline in mortgage interest rates. In contrast, resale home price increases that were less than household income gains combined with lower interest rates to raise the affordability of resale homes further above the affordability of new homes.

The index for new homes rebounded from a low point of 70 in third quarter 1984 to 80 in third quarter 1985, but it remained at 80 during the last quarter of 1985. On an annual average basis, the affordability of new homes advanced only one percentage point from 78 to 79 between 1983 and 1985, much slower improvement than the surge from 53 to 78 between 1981 and 1983.

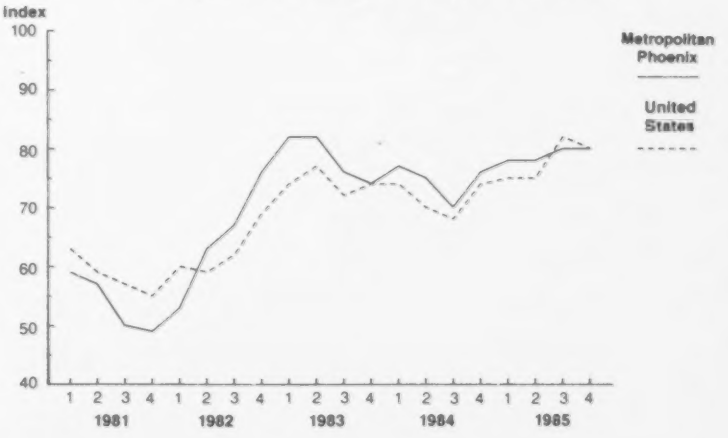
The resale index jumped to 93 during fourth quarter 1985, the highest level since the index began in 1981. The fourth quarter level was 38 points higher than the low point for the resale index, set in fourth quarter 1981. On an annual average basis, the index jumped eight percentage points in 1985; only the gain during 1983 was more rapid.

FIGURE I
HOUSING AFFORDABILITY INDEX, RESALE HOMES
Metropolitan Phoenix and the United States



Source: Bureau of Business and Economic Research and the Arizona Real Estate Institute, College of Business, Arizona State University.

FIGURE II
HOUSING AFFORDABILITY INDEX, NEW HOMES
Metropolitan Phoenix and the United States



Source: Bureau of Business and Economic Research and the Arizona Real Estate Institute, College of Business, Arizona State University.

COMPARISON TO NATIONAL AFFORDABILITY

During the fourth quarter 1985, housing affordability in the Phoenix area was identical to the national average for both new homes (80) and resale homes (93), as shown in Figures I and II. Nationally, new home affordability actually slipped two percentage points during the fourth quarter, while resale home affordability increased five points.

On an annual average basis in 1985, new and resale homes continued to be slightly more affordable in metropolitan Phoenix than in the United States. The national index for new homes (78) gained six index points from the previous year, while the national resale index jumped from 79 in 1984 to 87 in 1985. Increases in the national indexes were greater than advances in the local indexes.

OUTLOOK

Little further improvement in housing affordability is expected in 1986. Mortgage interest rates probably will remain nearly constant. However, changes in public policy, such as Federal Reserve actions on the discount rate, or changes in market perception of these policies and of the future course of inflation, could drive mortgage rates either higher or lower. Resale home price increases likely will continue to lag gains in new home prices, bracketing the probable rise in household incomes. Thus, if interest rates remain stable, affordability of resale homes would rise slightly, but affordability of new homes would decline slightly.

— **Jacqueline Fifield**
Research Analyst

Purchasing Tempo Picks Up in January

After painting a slow-growth picture almost every month of 1985, business activity began a slight acceleration in December, and the tempo picked up in January. Both new orders received and production increased strongly, and employment registered its best increase since last summer. The pace of price increases also quickened but not at an alarming rate. The new year is off to a good start.

January marks the 37th consecutive month of the economic expansion, and business activity clearly moved at a brisker pace, as it had in December. The economic uncertainties still are present, but there is a growing feeling that the forward momentum will continue over the new year. The overall effects of the decline in energy prices have yet to be sorted out but, on balance, it seems clear that they will be positive. Inventories are well under control; should inventory rebuilding begin, it would act like a coiled spring, providing a solid thrust to the forward economic movement.

Table 1 presents the results of the January survey of Arizona purchasing managers.

TABLE 1
JANUARY PURCHASING SURVEY

	Percent of Purchasing Managers Indicating Each Response (January compared to December)		
Key Indicators	*Higher*	*Same*	*Lower*
Prices paid for major commodities	25	66	9
Delivery time from vendors	25	64	11
Purchased materials inventory level	30	39	31
New orders received	43	37	20
Production	40	43	17
Employment	26	58	16
Purchases	46	35	19

Source: Purchasing Management Association of Arizona and the Purchasing Management Association of Southern Arizona.

PRICES

Prices paid for major purchased items registered a substantial gain in January, rising at a rate almost three times greater than in December. The month-to-month price increase rate in January was larger than in all but four of the months of 1985 (January, February, April, and November). This quickening rate of price increases is not particularly worrisome at this point, since the Arizona economy enjoyed a relatively low inflation rate during the last three quarters of 1985. It will take time for the effect of softening energy prices to work its way through the economy, but this will tend to dampen further price increases.

DELIVERY TIME

Delivery time on shipments from vendors continued to stretch in January, although at a slower rate than in December. However, with the exception of December, the increase rate was greater than in any month of 1985. Evidently, vendors to Arizona firms are feeling the faster pace of business, and the result is lengthened lead times.

INVENTORIES

Inventory levels of purchased materials were unchanged in January and have shown no real growth since the first quarter of 1985. However, if and when inventory additions begin, they have the potential to provide a strong stimulus to the growth curve.

NEW ORDERS

New orders booked by Arizona firms rose sharply in January, for the 37th consecutive month. The increase rate was the largest since last August and was exceeded in only two months of 1985 (February and March). The new order rate accelerated faster in each of the past three months, indicating that the economic growth curve is tilting upward.

PRODUCTION

Production also registered a good hike, beginning its fourth year of consecutive gains. Propelled by higher order bookings, the increase rate was substantially larger than in December and the highest of the last nine months (since April 1985).

EMPLOYMENT

Employment advanced again in January, for the 13th month in a row, and at twice the rate of the previous month. This was the largest month-to-month employment jump since August. The rising new order rate will lead to more new jobs in the future.

PURCHASES

Purchases went up again in January, as required to meet the higher level of production. The increase rate was the largest since May 1984.

— Harold Fearon

Dr. Fearon is chairman of the Department of Purchasing, Transportation, Operations in the ASU College of Business and is the National Association of Purchasing Management Professor.

Arizona Purchasing Survey

Now in its 24th year of monthly reporting, Dr. Harold Fearon's survey of Arizona business conditions utilizes data from a questionnaire sent to members of the purchasing management associations of Arizona and southern Arizona. It asks them to indicate the direction of activity — higher, unchanged, or lower — of seven key measures of economic activity in the month just ended. These purchasing managers deal daily with supply, demand, and price factors in the marketplace; their aggregate readings have accurately charted the state's economic course for two decades, providing timely data on turning points.

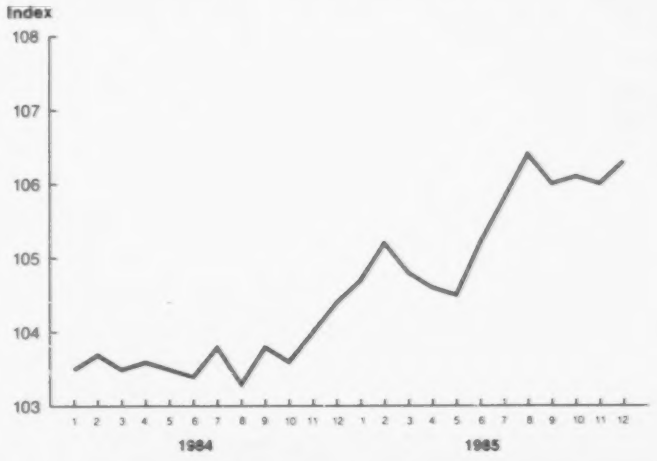
Arizona Leading Index Advances Cautiously in December

The Arizona Index of Leading Economic Indicators rose moderately in December, following two months of little change (see Figure I). December's 0.3 percent increase brought the index to 106.3 from a revised 106.0 in November (1977 = 100). Despite this gain, the index remained below its August 1985 peak.

At 70 percent, the diffusion index was relatively high, reaching its second-highest level in two years. Still, for the second consecutive month, none of the changes in components of the Arizona leading index was substantial. As a whole, the five indicators derived from a survey of Arizona purchasing managers recorded a moderate gain for the third straight month.

Residential building permits and the national money supply (M2) each rose, following declines in the prior two months (see Table 1). A reduction in average hours worked in the manufacturing industry partially offset these gains.

FIGURE I
ARIZONA INDEX OF LEADING ECONOMIC INDICATORS



Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

OUTLOOK

Nearly all of the increase in the Arizona index during 1985 resulted from a surge in the national money supply (M2). The slight gains measured in the five components from the purchasing survey and in sensitive materials prices were negated by declines in residential building permits, unemployment insurance claims and the average manufacturing workweek.

The advance in the Arizona index during 1985 slightly exceeded that of 1984, resulting in a forecast of Gross State Product growth of approximately 7.5 percent for 1986 — compared to the 6 percent predicted one year ago for 1985. A sharp improvement in economic performance, therefore, should not be expected. However, the likelihood of a recession beginning before late 1986 is less than 2 percent.

Results of the January survey of Arizona purchasing managers further substantiate the expectation of modest economic improvement. While the indicators rose on an unadjusted basis (see page 9), the increase between December and January traditionally is even greater. Thus, on the seasonally adjusted basis of the leading index, each of the five indicators derived from the purchasing survey made a negative contribution in January.

The national Index of Leading Economic Indicators is indicating far more improvement in the national economy during 1986. Gains in each

TABLE 1
NET CONTRIBUTION OF INDIVIDUAL COMPONENTS TO THE ARIZONA INDEX OF LEADING ECONOMIC INDICATORS

	Net Contribution+			
	Sept.	*Oct.*	*Nov.*	*Dec.*
Delivery Time*	−.11	14	−.02	.09
Inventory Levels*	−.09	.01	.03	.00
New Orders*	−.09	−.01	.10	.05
Production*	−.03	−.05	.01	.14
Employment*	−.15	.07	.08	−.01
Residential Building Permits	.03	−.13	−.25[r]	.10
Unemployment Insurance Claims	−.21	.19	−.15	.00
Average Workweek, Manufacturing	.07	−.10	.01	−.16
Money Supply	.18	−.06	.00	.10
Change in Sensitive Materials Prices	.01	.06	.04	.01
OVERALL INDEX	−.39	.12	−.16[r]	−.31

[r]Revised

+The net contribution of each component is calculated by multiplying the monthly percent change in its index by its relative importance.

*Based on indicators from the purchasing management associations of Arizona and southern Arizona.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

of the last eight months of 1985, including several substantial advances during the second half, were measured in the national index. A 4.5 percent forecast for Gross National Product growth in 1986, based on the December leading index, represents solid improvement from the 2.3 percent growth achieved in 1985. (The 1985 growth rate was near the forecast derived from the leading index one year earlier.) Most forecasters, however, do not expect GNP improvement in 1986 to approach the 4.5 percent forecast rate. Rather, a modestly better economy, similar to that indicated for Arizona by the state's leading index, is also likely on the national level.

— **Tom R. Rex**
Research Manager

Inflation Rate Slows in 1985

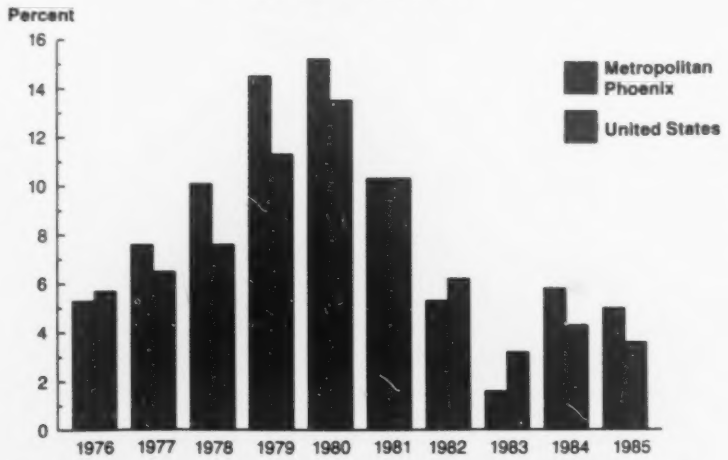
Consumer price inflation in the Phoenix metropolitan area slackened during the second half of 1985, resulting in a smaller annual average increase in 1985 than in 1984 (see Table 1). The magnitude of the deceleration in the annual average gain nearly matched that of the national average, but the Phoenix inflation rate outpaced the national average for the second straight year (see Figure I).

Several methods can be used to calculate the inflation rate from the consumer price index (CPI). In this article, the annual average percent change is used: the average of the four quarterly index values for a year, compared to the average of the previous year. The other widely used method is employed in the quarterly CPI reports (see the February *Arizona Business*). It compares the index value at the end of the year to the value at the end of the previous year. Because the inflation rate slowed during 1985, the year-end inflation rate (3.8 percent) was less than the annual average increase (5.0 percent).

CONSUMER PRICES IN 1985

With the exception of the medical care and entertainment categories, which each registered 10 percent inflation, all major categories of the metro Phoenix CPI recorded increases in the 4 to 5 percent range. While overall inflation decelerated during 1985, this pattern was not consistent among all categories; the index for food and beverages and for entertainment rose more rapidly during 1985 than in 1984.

FIGURE I
METROPOLITAN PHOENIX AND U.S. CONSUMER PRICE INDEXES
Annual Percent Changes



Source: Bureau of Business and Economic Research, College of Business, Arizona State University, in cosponsorship with Valley National Bank.

Food and Beverages

Most food and beverage categories experienced slightly more rapid inflation in 1985 than in 1984; the major exception was meats, poultry, fish and eggs, which registered consecutive 1 percent gains. Price rises in cereal and bakery products were most rapid in both years, followed closely by those of fruits and vegetables. Fresh fruit prices soared 20 percent higher than in 1984, but fresh vegetable prices tumbled 2 percent.

Housing

The advance in housing costs was slightly faster in 1985 than in 1984, as a smaller gain in fuel and other utilities offset a more rapid rise in household furnishings and operations. Electricity rate hikes remained moderate at 5 percent, compared to 3 percent in 1984, while piped gas rates fell 4 percent in 1985, following a 10 percent climb in 1984. Further, the increase in other utilities and public services was just 1 percent, compared to 11 percent in 1984; inflation in telephone rates, water and sewerage maintenance, and garbage collection all subsided.

Apartment rent increases remained moderate, decelerating from 7 percent in 1984 to 6 percent in 1985. Homeowners' costs also went up a moderate 4 percent.

Transportation

Transportation costs rose less quickly in 1985, in large part due to

TABLE 1
METROPOLITAN PHOENIX CONSUMER PRICE INDEX
Annual Average, Selected Items

Expenditure Category	1985 Relative Importance[1]	1985 Index (1977 = 100)	Percent Change 1985	1984
ALL ITEMS	100.0%	190.4	5.0%	5.8%
Food and Beverages	19.0	171.8	4.3	3.5
Food	17.8	172.5	4.3	3.6
Food at Home	11.6	169.9	4.1	3.1
Cereal and Bakery Products	1.5	186.0	7.6	6.0
Meats, Poultry, Fish, & Eggs	3.4	158.2	1.1	1.3
Dairy Products	1.6	160.0	3.3	1.3
Fruits and Vegetables	2.0	184.9	6.3	5.6
Other Food at Home	3.2	159.4	4.5	3.1
Food Away from Home	6.2	174.6	4.8	4.4
Housing	38.9	198.4	4.5	4.1
Shelter	24.8	212.6	5.2	4.2
Renters' Costs	8.1	114.9[2]	5.9	NA
Homeowners' Costs	15.8	106.9[2]	4.3	NA
Fuel and Other Utilities	6.7	173.1	1.8	7.4
Gas (piped) & Electricity	4.3	191.3	1.6	6.2
Household Furnishings & Operations	7.4	151.4	4.4	1.5
Apparel and Upkeep	4.8	145.9	3.8	3.8
Transportation	21.7	188.1	5.4	7.3
Private Transportation	20.2	184.9	5.5	7.1
New and Used Cars	7.6	194.5	4.2	13.4
Motor Fuels	5.8	198.8	3.0	1.7
Public Transportation	1.6	240.1	2.7	9.7
Medical Care	6.6	254.5	10.0	19.3
Entertainment	4.6	185.6	10.0	5.8
Other Goods and Services	4.3	171.3	5.4	6.4

[1]Expressed as a percent of all items. The relative importance of the seven major categories sums to 100.0 percent. Only selected detail items are shown; thus, the relative importance of these items will not sum to that of the major categories.

[2]Second quarter 1983 = 100.

NA = Not Available

TABLE 2
METROPOLITAN PHOENIX CONSUMER PRICE INDEX
UNITED STATES AND COMPARATIVE METROPOLITAN AREAS
1985 Annual Average Percent Change

Expenditure Category	Phoenix	United States	Denver*	San Diego*
ALL ITEMS	5.0%	3.6%	2.7%	5.5%
Food and Beverages	4.3	2.3	1.8	2.3
Housing	4.5	4.0	2.6	8.6
Apparel and Upkeep	3.8	2.9	2.8	2.2
Transportation	5.4	2.6	2.3	3.8
Medical Care	10.0	6.2	6.8	3.8
Entertainment	10.0	3.9	0.2	4.4
Other Goods and Services	5.4	6.1	6.0	7.1

*Estimated

TABLE 3
INFLATION FORECASTS, METROPOLITAN PHOENIX

	1985 Actual		1986 Forecast	
Expenditure Category	Year-end	Annual Average	Year-end	Annual Average
ALL ITEMS	3.8%	5.0%	6.0%	4.7%
Food and Beverages	4.6	4.3	5.1	4.9
Housing	3.3	4.5	5.9	4.6
Apparel and Upkeep	5.5	3.8	6.1	5.3
Transportation	1.3	5.4	5.6	2.7
Medical Care	8.8	10.0	8.9	8.5
Entertainment	14.5	10.0	5.6	9.4
Other Goods and Services	4.3	5.4	6.1	5.1

Source (Tables 1, 2 and 3): Metropolitan Phoenix CPI data and inflation forecasts compiled by the Bureau of Business and Economic Research, College of Business, Arizona State University. Valley National Bank cosponsors the metro Phoenix CPI reports. CPI data for other cities and the U.S. from the U.S. Department of Labor, Bureau of Labor Statistics.

a sharp braking of used car price gains: from 21 percent in 1984 to 1 percent in 1985. However, an acceleration in new car price increases from 3 percent to 9 percent partially offset this slowdown. Following a decline in 1983, gasoline prices advanced only 2 percent in 1984 and 3 percent in 1985. Vehicle finance charges and prices of vehicle parts and equipment fell for the second consecutive year, but vehicle insurance rates continued their double-digit explosion in 1985, up 21 percent.

Medical Care

Medical care inflation slowed by nearly one-half in 1985 but still averaged 10 percent. After nearly 50 percent inflation in 1984, health insurance premiums averaged only 13 percent higher in 1985. The magnitude of this gain is misleading, however, in that large premium boosts during 1984 were largely responsible; premiums climbed less than 6 percent between year-end 1984 and year-end 1985. Hospital costs rose just 4 percent in 1985, the second consecutive moderate advance.

Inflation in other medical care categories accelerated. Fee increases for professional services doubled to 8 percent in 1985; prices of non-prescription drugs and medical supplies jumped 12 percent; and prices of prescription drugs surged 14 percent, the third consecutive double-digit increase.

Other Categories

Advances in the apparel and upkeep category held steady at 3.8 percent, and gains in the other goods and services category slowed to 5 percent despite an acceleration in price increases for tobacco products. Entertainment costs, however, rose at double-digit rates. Prices for reading materials soared 21 percent, while admissions and fees jumped 10 percent.

COMPARISON AREAS

For the second consecutive year, the inflation rate in the Phoenix metropolitan area outpaced the rate

of the nation as a whole and of the comparison area of Denver but fell slightly short of San Diego's pace. The inflation rate in rapidly growing Sunbelt metropolitan areas, such as Phoenix and San Diego, usually exceeds the national average during an economic expansion. Denver's ongoing problems with the oil industry probably were a factor in its below-national-average inflation of the past two years.

Inflation in metropolitan Phoenix in each major CPI category except other goods and services exceeded the national average during 1985 (see Table 2). Except in the largest category, housing, the Phoenix area rate was notably higher. A similar comparison could be made to Denver's major CPI categories.

San Diego's higher inflation was due almost entirely to a large advance in housing costs. Phoenix's inflation was substantially higher in every other major category except other goods and services.

OUTLOOK

National inflation during 1986 should remain near the 3.6 percent annual average increase recorded in 1985; nearly all economists project the 1986 annual average to be between 2.5 and 5 percent. Most prognostications, however, include an acceleration in the inflation rate during 1986. Those expecting inflation near 5 percent on average assume a higher year-end rate, leading to greater disagreement about the course of inflation in 1987.

Most analysts expect depreciation of the dollar to gradually result in higher inflation. Much of this acceleration, however, should be negated by falling energy prices. Further, food prices, except for meat, should continue to rise at a slow pace.

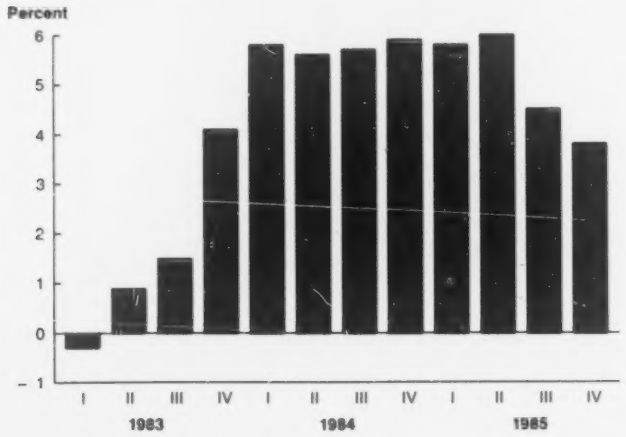
In the Phoenix metropolitan area, the annual average inflation rate should be lower in 1986 than in 1985 because of the near-absence of inflation during the second half of 1985. The year-over-year inflation rate, just 3.8 percent at the beginning of 1986, should remain near 4 percent during the first half of 1986 since inflation during this period is expected to approximate the relatively rapid rises of the first halves of both 1984 and 1985. Larger gains during the second half of 1986 than during the second half of 1985 should push the year-over-year inflation rate back near 6 percent by the end of 1986: the level that persisted throughout 1984 and the first half of 1985 (see Figure II).

By the end of 1986, most major categories of the Phoenix CPI should have a year-over-year inflation rate between 5 and 6 percent (see Table 3); only the medical care increase should be higher. On an annual average basis, however, more dispersion is likely, with inflation in medical care and entertainment nearly double, but inflation in transportation much less than, the all items rate.

If inflation remains subdued during 1986, it will mark the fourth consecutive year of rates less than 6 percent per year in the Phoenix area and less than 4.5 percent per year nationally. Such stability has not occurred since the mid-1960s. However, these rates remain high from a historical perspective; a steady 4 percent rate, for example, would cause price levels to double in 18 years. This experience is much different from the deflationary cycles that regularly occurred during the first 175 years of U.S. economic history.

— **Tom R. Rex**
Research Manager

FIGURE II
METROPOLITAN PHOENIX CONSUMER PRICE INDEX
YEAR-OVER-YEAR INFLATION RATE



Source: Bureau of Business and Economic Research, College of Business, Arizona State University, in cosponsorship with Valley National Bank.

CPI Description Available

A description of the Consumer Price Index is available on request from the Bureau of Business and Economic Research. It answers common questions concerning the CPI; for example:

- What is the difference between the CPI for all urban consumers (CPI-U) and the CPI for urban wage earners and clerical workers (CPI-W)?
- What is the relationship between the CPI and the inflation rate and how is this rate calculated?
- Is the CPI a cost-of-living index?
- How is the CPI applied in contractual agreements?

A copy of the CPI description can be obtained by calling (602) 965-3961.

GSP Growth Still Subpar in Third Quarter

Slower-than-average growth in the Arizona Gross State Product (GSP) continued during third quarter 1985. While the inflation-adjusted expansion of 4.9 percent (excluding mining and agriculture) represented an improvement from the second quarter's revised 3.3 percent rise, growth remained below the long-term average of 5.5 percent (see Table 1).

The pattern of growth in real, adjusted GSP has been similar to that of the revised Gross National Product (GNP) in recent quarters (see Figure I). The rapid expansion of 1983 and early 1984 ended in the third quarter 1984 nationally, but not until the following quarter in Arizona. Since then, both nationally and in Arizona, slower-than-normal growth has persisted except for a brief interruption during first quarter 1985.

Without adjustment for the wide fluctuations in the agriculture and mining sectors, real GSP has followed a more erratic course, including a revised decline during second quarter 1985. On average, real GSP continues to rise more slowly than the adjusted version.

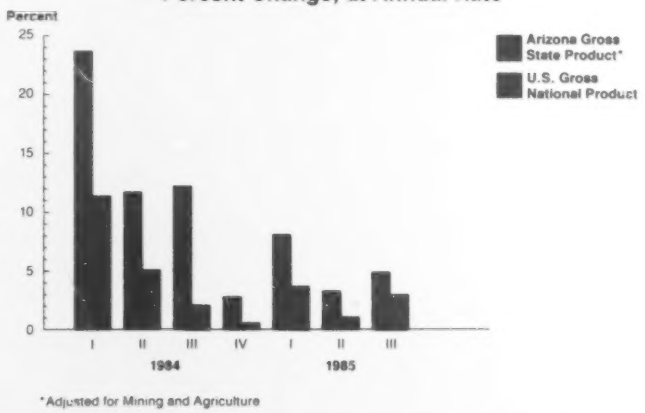
In addition to its impact on the mining and agriculture sectors, the growth recession has primarily affected the other productive industries of construction and manufacturing. The trade and services sectors continue to expand relatively rapidly, fueled by population gains and increases in household income.

OUTLOOK

Substantial revisions to the GNP were included in the fourth quarter 1985 report; similar revisions, though of a lesser magnitude, will be incorporated into the fourth quarter Arizona GSP. Growth in the fourth quarter 1985 GNP was a subpar 1.2 percent; the GNP has yet to reflect the improving economic conditions signaled by various economic indicators. In Arizona, a gradual, but modest, acceleration in the rate of economic growth is expected.

— **Tom R. Rex**
Research Manager

FIGURE I
ARIZONA GROSS STATE PRODUCT* AND U.S. GROSS NATIONAL PRODUCT
Percent Change, at Annual Rate



*Adjusted for Mining and Agriculture

Source: Bureau of Business and Economic Research, College of Business, Arizona State University

TABLE 1
ECONOMIC GROWTH

	Arizona Gross State Product				Gross National Product
Quarter	*Billions of Current Dollars, Annualized*	*Billions of 1972 Dollars, Annualized*	*Annualized Percent Change (1972 Dollars)*	*Annualized Percent Change (Adjusted GSP)**	*Annualized Percent Change (1982 Dollars)r*
First 1983	$33.756	$16.635	14.7%	18.6%	4.0%
Second 1983	35.558	17.472	20.1	22.6	8.9
Third 1983	37.183	18.121	14.9	13.3	4.3
Fourth 1983	38.159	18.552	8.8	5.3	8.0
First 1984	39.832	19.531	21.8	23.7	11.4
Second 1984	40.719	19.804	5.6	11.7	5.1
Third 1984	42.217	20.599	16.1	12.2	2.1
Fourth 1984	42.669	20.693	1.8	2.8	0.6
First 1985r	44.607	21.247	10.7	8.1	1.1
Second 1985r	44.797	21.185	−1.2	3.3	1.1
Third 1985	45.543	21.507	6.1	4.9	3.0

*The adjusted GSP is the annualized GSP in billions of 1972 dollars, minus the contributions of the agriculture and mining industries.

rRevised.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University; in cosponsorship with the ASU College of Business Dean's Council of 100.

Arizona Male-to-Female Ratio Higher Than Nation's

The number of females exceeds the number of males in Arizona, but not by as great a proportion as nationally. In 1980, the Arizona population consisted of 97 males per 100 females, the same ratio measured since 1970. Nationally, 94 males were counted for every 100 females.

HISTORICAL PERSPECTIVE

Until the 1960s, the number of males exceeded the number of females in Arizona, a trend dating to the state's days as a frontier territory. In 1910, the ratio was 138 males per 100 females, compared to 106 males per 100 females for the nation as a whole.

Gradually, the state's ratio declined toward the national average as the number of native Arizonans increased and the composition of migrants to the state changed to include more females.

ARIZONA SEX RATIOS, BY AGE

The sex composition of the Arizona population varies substantially by age. For those who were 18 or younger in 1980, the ratio was 104 males to 100 females, due primarily to the fact that more males than females are born every year.

Among the working-age population, the ratio was 97 males to 100 females, the same as for the entire population. With the much longer life expectancy for women, the relative proportion dropped to 79 men to 100 women age 65 or older. Despite this low ratio, because of the large volume of retirement migration to Arizona, consisting primarily of couples, the state's elderly population comprises relatively more men than in either the West or the nation as a whole.

— Timothy D. Hogan

Dr. Hogan is Professor of Economics in the ASU College of Business and Director of the State Data Center/ASU.

Valley Mortgage Rates Decline

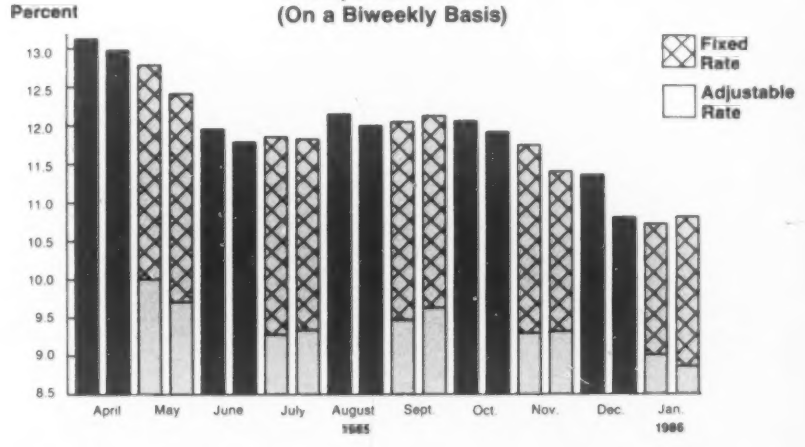
Interest rates for a conventional, 30-year, fixed-rate mortgage in the Phoenix metropolitan area declined by more than two percentage points between April 1985 and February 1986, according to a weekly survey begun last April. Rates for adjustable-rate mortgages did not go down as much, but the initial rate remained nearly two percentage points less than for a fixed-rate mortgage (see Figure I).

The "points" — a one-time fee paid to the lender — varied on fixed-rate loans in a narrow range of 2.3 to 2.8 percent of the mortgage amount. Average points of 2.5 or less usually presage a decline in interest rates the following week. Generally, the points charged for adjustable-rate mortgages were the same or slightly higher than for a fixed-rate mortgage.

Interest rates on a 15-year, fixed-rate mortgage usually were approximately one-quarter percentage point less than on a 30-year, fixed-rate mortgage; the points charged on a 15-year mortgage were also slightly lower. While monthly payments on a 15-year mortgage are higher than on a 30-year mortgage, the additional payment is used to pay off the principal more rapidly.

— Tom R. Rex
Research Manager

FIGURE I
AVERAGE MORTGAGE INTEREST RATES
Metropolitan Phoenix
(On a Biweekly Basis)



Source: Arizona Real Estate Institute and Bureau of Business and Economic Research, College of Business, Arizona State University.

Update Your Mailing Label(s)

By early April, *Arizona Business* readers will receive a form on which to update their mailing label(s). This form must be completed and returned to us within 15 days of receipt, or your label will be removed from the mailing list.

The form also will include a three-question reader survey. By checking the appropriate boxes, you will aid us in planning an upcoming series of reader surveys on current issues of interest to the business/governmental communities.

ARIZONA ECONOMIC INDICATORS

	Month or Quarter	Value	Percent Change from Previous Period	Percent Change from Year Ago	Year-to-Date Value	Year-to-Date Percent Change from Year Ago
GROSS STATE PRODUCT (In Billions of Dollars, at Annual Rate)						
Arizona - Current Dollars	3rd Qtr.	45.543	6.7	7.9	NA	NA
Arizona - 1972 Dollars	3rd Qtr.	21.507	6.1	4.4	NA	NA
CONSUMER PRICE INDEX (1977 = 100)						
Metropolitan Phoenix	4th Qtr.	191.5	0.0	3.8	NA	NA
INDEX OF LEADING ECONOMIC INDICATORS (1977 = 100)						
Arizona	Dec.	106.3	0.3	1.8	NA	NA
BUILDING PERMITS (Total Dollar Value in Thousands)						
Maricopa County	Nov.	215,328	-35	-21	3,765,105	5
Pima County	Nov.	43,777	-21	-21	716,776	1
Balance of State	Nov.	39,657	-29	-58	633,771	0
Arizona	Nov.	298,762	-32	-29	5,124,974	4
TOTAL HOUSING UNITS AUTHORIZED						
Maricopa County	Nov.	2,893	-48	-5	50,657	-10
Pima County	Nov.	436	-62	-37	11,551	-20
Balance of State	Nov.	1,115	-11	8	15,644	27
Arizona	Nov.	4,444	-44	-7	78,080	-6
HOME SALES						
Maricopa County - Number	Dec.	5,429	37	12	56,380	1
Maricopa County - Median Price	Dec.	76,900	2.1	5.8	74,000	4.2
HOUSING AFFORDABILITY INDEXES						
Metropolitan Phoenix - New Homes	4th Qtr.	80	-1.2	5.3	NA	NA
Metropolitan Phoenix - Resale Homes	4th Qtr.	93	3.3	13.4	NA	NA
MORTGAGE INTEREST RATES (Conventional, 30-year, Fixed-rate)						
Maricopa County	Dec.	11.0	-5.2	*	NA	NA
Maricopa County	Jan.	10.8	-1.8	*	NA	NA
POPULATION ESTIMATES (In Thousands)						
Maricopa County	4th Qtr.	1,856	1.1	4.9	NA	NA
Arizona	4th Qtr.	3,294	1.0	4.1	NA	NA
ELECTRICAL POWER SALES (In Millions of Kilowatt Hours)						
Arizona	Dec.	2,793.7	10.9	3.9	35,579.0	6.8

NA = Not Applicable

* = Not Available

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

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